KIDSNET Data Book, 1997-2004

A report from KIDSNET, Rhode Island's integrated child health information system

MAKE HEALTH PART OF YOUR FAMILY

RHODE ISLAND DEPARTMENT OF HEALTH

Dear Colleague

The Department of Health works to ensure all Rhode Islanders can live safe and healthy lives. The Division of Family Health focuses on the health and development of Rhode Island's children and families. Over many years, we have helped build a family-centered community system of resources and services that can recognize and respond to children's needs in their homes, in medical practices, in child care, in schools, and other settings. Good information on children's and families' health is a cornerstone of our mission. Therefore, this report using data from KIDSNET, Rhode Island's integrated child health information system, is an especially important resource.

KIDSNET's mission is to "facilitate the collection and appropriate sharing of health data with healthcare providers, parents, MCH programs, and other child service providers for the provision of timely and appropriate preventive health services and follow up." In fulfillment of our mission, we receive important information about the health of Rhode Island children. This resource can be used to assess the health of populations and determine if services are being delivered in a timely and well-coordinated manner.

We will continue to use KIDSNET to assess trends in the delivery of preventive care, thus measuring whether our children are connected to a "medical home" for health care. Our priorities for the upcoming year are:

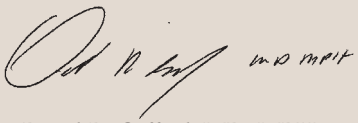
» Engage the pediatric providers who have not yet joined KIDSNET to participate in the program,

» Continue to enhance the KIDSNET system to make it more accessible and easy to use,

» Continue to analyze KIDSNET data to identify children who are connected to medical homes.

In this first report, KIDSNET data are used to examine the proportion of children accessing certain preventive services. We hope this information will raise awareness of the need for medical homes for all children and lead to policy changes to ensure children receive the care they need. Please join us in this endeavor as we move from data to action.

Sincerely,

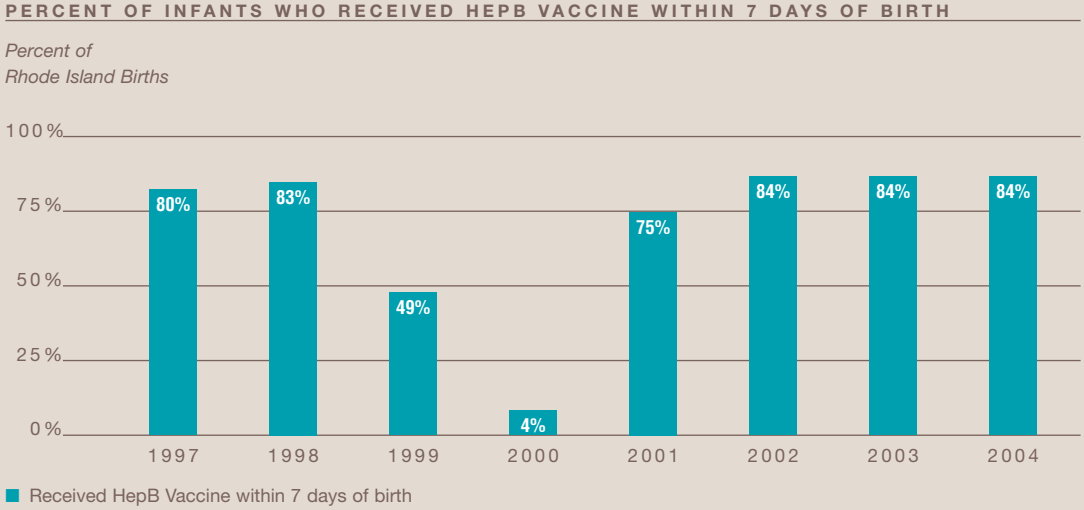


David R. Gifford, MD, MPH

Director, Rhode Island Department of Health

Infants Receiving the First Dose of Hepatitis B Vaccine Before Hospital Discharge[1]

PERCENT OF INFANTS WHO RECEIVED HEPB VACCINE WITHIN 7 DAYS OF BIRTH



Source: KIDSNET, Rhode Island Department of Health, October 2005. All KIDSNET data in these reports were prepared using Rhode Island births only.

» KIDSNET is the tool that assesses timeliness of hepatitis B vaccine administration to infants born in Rhode Island.

» The Advisory Committee on Immunization Practices (ACIP), American Academy of Pediatrics (AAP), and the American Academy of Family Practitioners (AAFP)[2] recommend that all infants receive the first dose of hepatitis B vaccine soon after birth and before hospital discharge. The first dose may also be administered by 2 months of age if the mother is hepatitis B surface antigen (HBsAg) negative. Preterm infants weighing < 2000g born to HBsAg-negative women should receive the first dose of vaccine 1 month after birth or hospital discharge.

» In July 1999, in response to concerns about the thimerosal content in hepatitis B vaccine, the AAP and the Public Health Service issued a joint statement that recommended postponing the first dose of hepatitis B vaccine for infants born to women with HBsAg-negative status until 2-6 months of age. This statement explains the dramatic decrease in hepatitis B vaccine administration before hospital discharge as shown in 1999 and 2000.[3] Additionally, some difficulty in the data collection process was experienced during this period, which may add to the decrease. Also, vaccination data are not usually captured for preterm infants because of the delay in vaccination for this population.

» In the last four years, about 80% of infants born in Rhode Island have received the hepatitis B vaccine before hospital discharge.

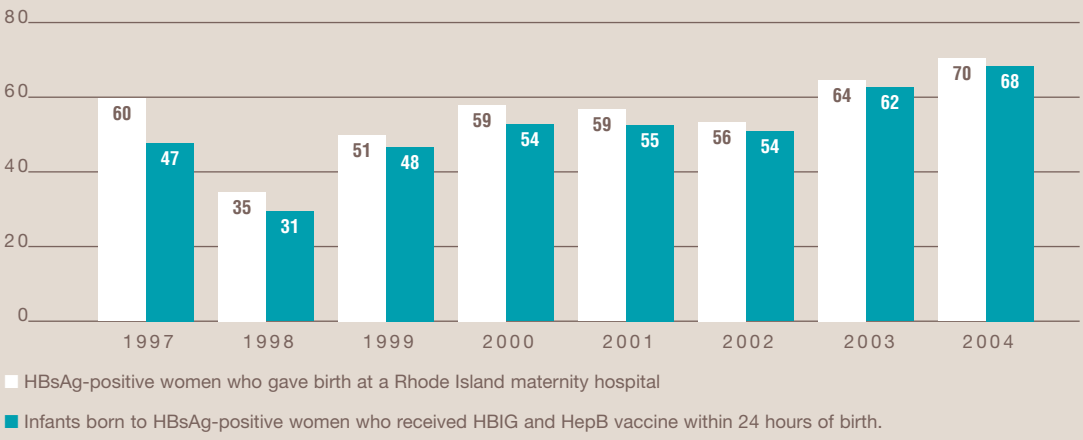
1 For the purpose of this report "hospital discharge" is defined as within 7 days of birth.

2 The Recommended Childhood and Adolescent Immunization Schedule can be found at: www.cdc.gov/nip/recs/child-schedule.pdf

3 The article "Thimerosal in Vaccines: A Joint Statement of the American Academy of Pediatrics and the Public Health Service" can be found at this link: www.cdc.gov/mmwr/preview/mmwrhtml/mm4826a3.htm

Infants Born to HBsAg-Positive Women Who Received HBIG and Hepatitis B Vaccine At Birth[4]

INFANTS BORN TO HBsAg-POSITIVE WOMEN WHO RECEIVED HBIG AND HepB VACCINE AT BIRTH



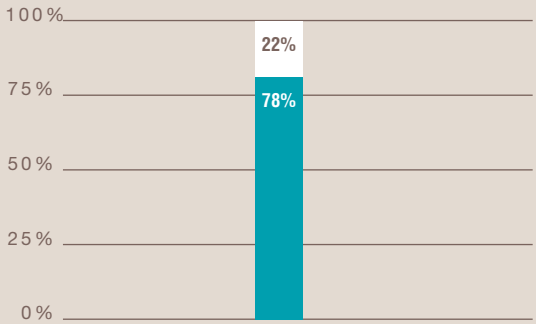
Source: KIDSNET, Rhode Island Department of Health, October 2005. All KIDSNET data in these reports were prepared using Rhode Island births only.

- ACIP recommends that all infants born to HBsAg-positive women (chronic hepatitis B carriers) receive hepatitis B immune globulin (HBIG) and the first dose of hepatitis B vaccine at birth. Infants should receive a second dose at 2-4 months of age and a third dose by 6 months of age, followed by post vaccination testing.[2]
- The Rhode Island Perinatal Hepatitis Prevention Program utilizes KIDSNET to identify and track infants born to HBsAg-positive women to ensure that infants and their families receive comprehensive case management services that include hepatitis education home visits, testing and immunization for household contacts, and referral for medical management if indicated.
- KIDSNET receives HBsAg-positive data collected at birth from all Rhode Island birthing hospitals.
- Since 1997, the highest number of Rhode Island women identified as HBsAg-positive who gave birth in a given year was 70 women, in 2004. This number represents less than 0.5% of total annual births in Rhode Island.
- During the last 8 years, the lowest number of HBsAg-positive women who gave birth in Rhode Island in a given year was 35 women, in 1998.
- In 2004, 97% of infants born to HBsAg-positive women received the HBIG and hepatitis B vaccine within 24 hours of birth. This reflects a high compliance with the recommendations and helps to ensure the prevention of hepatitis B virus infection.

4 For the purpose of this report, "receiving the vaccine at birth" is defined as vaccine administered within 24 hours of birth.

Immunization Data in KIDSNET as a Tool to Measure Timely Access to a Primary Care Provider (Medical Home[5])

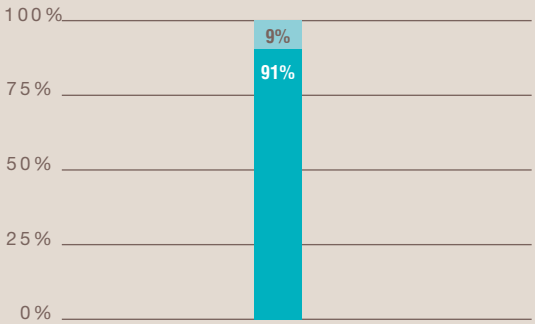
IMMUNIZATION DATA IN KIDSNET



Children with immunization data in KIDSNET

Children with no immunization data in KIDSNET

TIMELINESS OF FIRST IMMUNIZATION THROUGH A PRIMARY CARE PROVIDER (PCP)



Children receiving first immunization before 3 months of age

Children receiving first immunization after 3 months of age

Source: KIDSNET, Rhode Island Department of Health, October 2005. All KIDSNET data in these reports were prepared using Rhode Island births only.

» Seventy-three percent (73%)[6] of pediatric practices in Rhode Island participate in KIDSNET by submitting their patients' immunization data (not including the dose of hepatitis B given at birth). The remaining 27% (or 45 pediatric practices) not yet participating are being contacted and invited to voluntarily join KIDSNET in early 2006.

» Using immunization data in KIDSNET as a proxy to measure access to a medical home, 78% of the 107,398 children in KIDSNET received at least one vaccination through their PCP. Through this contact with a PCP to receive an immunization, it can be inferred that the family has established an initial connection to a medical home.

» Immunization data are not available for 22% of the children in KIDSNET. These children may be patients of pediatric practices that are not yet participating in KIDSNET or may not be connected to a PCP at all. Having complete immunization data through provider participation would allow KIDSNET to assess statewide access to a medical home.

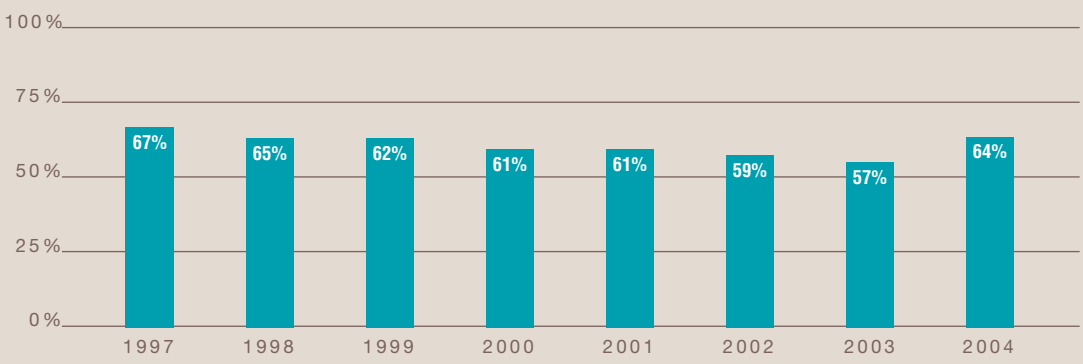
» Of those 78% of children in KIDSNET for whom there are immunization data, 91% received at least one vaccination within 3 months of birth and are therefore considered connected to a medical home in a timely manner.

5 The American Academy of Pediatrics believes that all children should have a medical home where care is accessible, family-centered, continuous, comprehensive, coordinated, compassionate, and culturally effective. Given this definition, the measure included in this report is only a partial benchmark for being connected to a medical home.

6 As of December 2005, 120 of the 165 pediatric provider practices in Rhode Island are participating in KIDSNET. These 120 practices in Rhode Island see 78.4% of the children born on or after 1/1/1997. Data used in this report includes births from 1997 to 2004 only.

Children in Early Intervention (EI)[7] and the Special Supplemental Nutrition Program for Women, Infants and Children (WIC)[8]

PERCENT OF CHILDREN IN EI WHO ALSO PARTICIPATE IN WIC AT SOME POINT



Source: KIDSNET, Rhode Island Department of Health, October 2005. All KIDSNET data in these reports were prepared using Rhode Island births only.

» In Rhode Island, KIDSNET is the only assessment tool that makes it possible to examine groups of children who receive services from more than one public health program. This analysis can help programs to identify the need to track additional data, enhance coordination of services, or join outreach efforts.

» KIDSNET receives data from both the EI and WIC programs, indicating participation of children in these programs. For confidentiality reasons, EI only sends data to KIDSNET that indicate if the child was ever in the program, but doesn't include duration of services or diagnosis. WIC sends data to KIDSNET if the child has ever received services from WIC including hemoglobin/hematocrit results and risk factors that are used to determine WIC eligibility. Because of the way data are reported, KIDSNET can only identify if children in the database were ever enrolled in one or both of these programs.

» Based on KIDSNET data from 1997 to 2004, about 60% of children who had been in EI had also participated in WIC at some point.

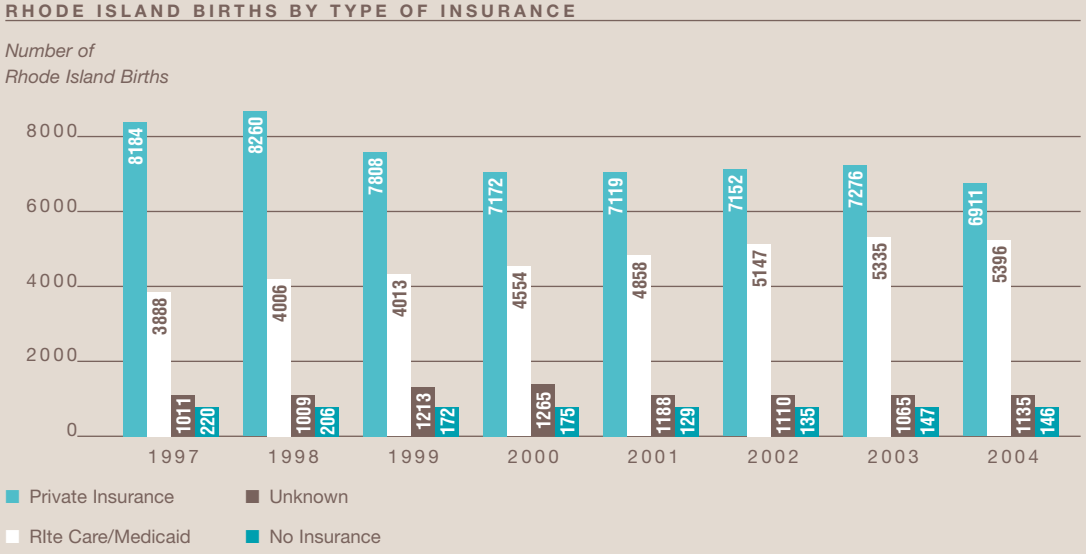
» In 2004, of the 690 children who had been in EI, 439 (64%) were also in WIC at some point in time, while the remaining 251 (36%) had never participated in WIC.

7 *EI serves all children (from birth to age three) with developmental delays and their families regardless of income or health insurance coverage.*

8 *WIC is a nutrition program that offers healthy food and nutrition advice to pregnant women, new moms, babies, and children under age five who meet income guidelines.*

Births by Type of Insurance

RHODE ISLAND BIRTHS BY TYPE OF INSURANCE



Source: KIDSNET, Rhode Island Department of Health, October 2005. All KIDSNET data in these reports were prepared using Rhode Island births only.

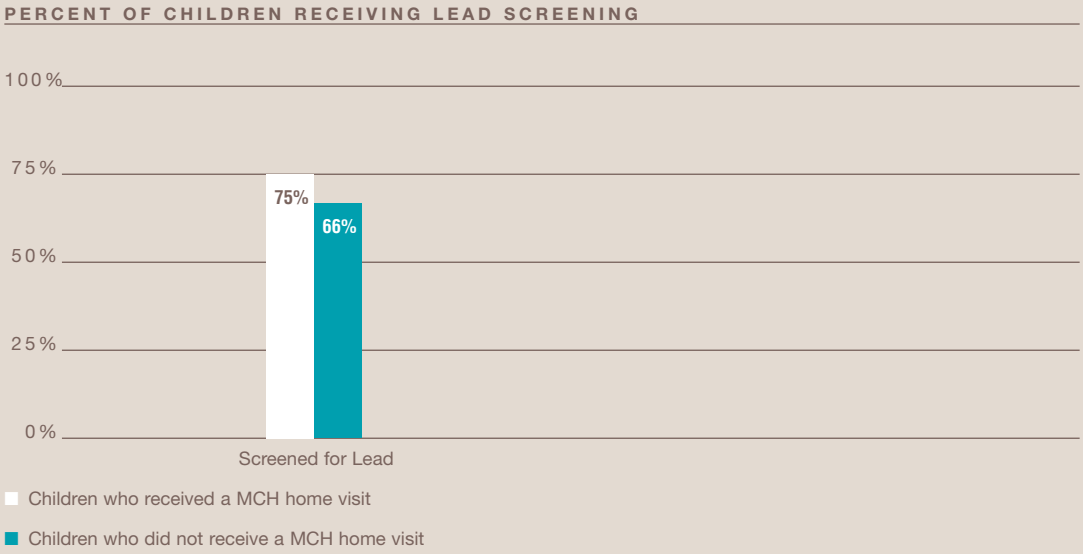
» KIDSNET tracks children's medical insurance type as reported by women who give birth at any Rhode Island maternity hospital. Data is collected from Maternal and Child Health (MCH) coordinators who conduct the newborn screening for developmental risk at all birthing hospitals in the state.

» Most infants born to women in the state have private insurance. However, there is a slight decreasing trend over the years. In 1997, 8,184 (62%) births were from women who had private insurance, compared to 6,911 (51%) in 2004.

» The number of infants born to women insured by Medicaid/RIte Care has grown from 3,888 (29%) in 1997 to 5,396 (40%) in 2004, while the total number of births in the state has remained constant.

» In spite of the high rates of insured families, Rhode Island still has newborns whose families reported having no insurance. Between 1997 and 2004, the number of infants with no insurance decreased from 220 (2%) in 1997 to 146 (1%) in 2004.

Home Visit and Lead Screening Cohort Study[9]



Source: KIDSNET, Rhode Island Department of Health, October 2005. All KIDSNET data in these reports were prepared using Rhode Island births only.

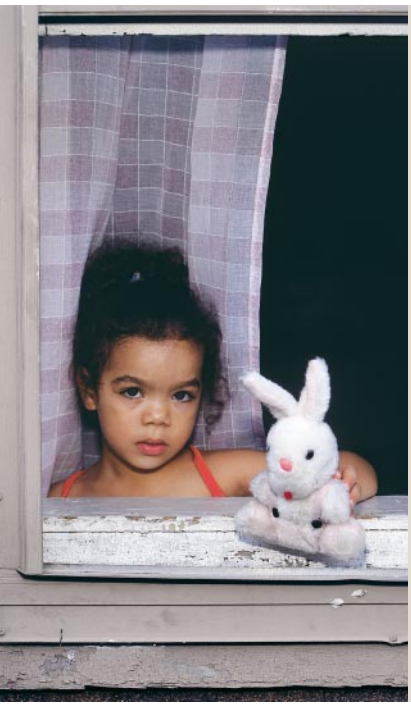
- KIDSNET data were used to conduct a study in 2003 called "A historical cohort study to evaluate the Family Outreach Program: Does a Maternal and Child Health home visit[10] make lead screening more likely and lower blood lead levels in at-risk[11] children?"
- The study included 35,833 children, 46% (16,644) of whom received a Maternal and Child Health (MCH) home visit.
- Children who received a MCH home visit were significantly and consistently more likely to be lead screened in a timely manner than children who did not receive a MCH home visit. Lead screening rates were significantly higher among children who received a home visit (75%) than among children who did not receive a home visit (66%). This is consistent with findings from other studies that indicate that home visits are successfully connecting children to services, such as lead screening.
- There was no significant relationship between children receiving a home visit and children being lead poisoned (had a blood lead level ≥10 µg/dL). This is consistent with findings from other studies that suggest that parental education has an extremely limited ability to prevent lead poisoning among children, and that the removal of lead hazards is the only preventive measure that is really effective.

9 A Master of Public Health student working for the Rhode Island Department of Health conducted this study in 2003. To review the complete report, analysis, and limitations of the study, please contact MagalyA@doh.state.ri.us.

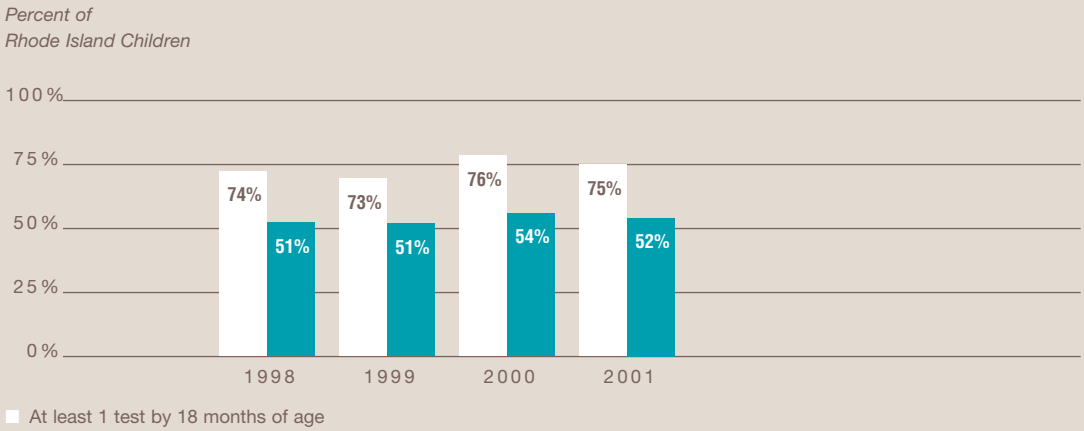
10 "Maternal and Child Health home visit" refers to a home visit that is offered to families with infants who are identified to be "at-risk."

11 To determine if a child is "at-risk," KIDSNET uses the newborn screening for developmental risk criteria, which analyzes mother's age, education, prenatal care received, as well as the infant's birth weight, developmental disability, and other factors.

Children in Compliance with Lead Screening Guidelines



PERCENT OF CHILDREN IN COMPLIANCE WITH LEAD SCREENING GUIDELINES



Birth cohorts beyond 2001 are not included here because those children had not yet turned 36 months of age by the time this report was prepared.

Source: KIDSNET, Rhode Island Department of Health, October 2005. All KIDSNET data in these reports were prepared using Rhode Island births only.

» Compliance with lead screening is measured in two ways: the percent of 18 month-old children tested for lead at least once, and the percent of 36 month-old children tested twice, with each test at least 12 months apart. The lead screening rate is calculated using the number of children who are tested for lead (numerator) divided by the total number of children in Rhode Island (denominator).

» KIDSNET provides the denominator, or total number of children under the age of six born in the state in a given year, while the Lead Elimination Surveillance System from the Lead Program provides the numerator, or number of children screened for lead each year.

» Since April 2004, many pediatric practices have had access to the web-enabled KIDSNET system, which allows them to generate reports of unscreened patients in their practice at any time and use these reports to monitor lead screening among their patients.

» By December 2005, 120 of the 165 pediatric providers in Rhode Island were participating in KIDSNET. Eighty-two percent (82%) of these providers have access to the web-enabled application and about 10% are running an on-demand report of patients in their practice who need lead screening.

» Approximately 75% of Rhode Island children born from 1998 through 2001 were screened for lead poisoning at least once by 18 months of age; however, just over half of these children were screened at least twice by 36 months of age. This indicates that although the majority of children are being screened by 18 months of age, efforts must continue to focus on screening children as they approach 36 months of age.

PHOTOCOPY THIS PAGE, WRITE IN YOUR ANSWERS, THEN FAX OR MAIL, THANK YOU.

Tell us what you think.

Please take a few minutes to answer the following questions and then fax this page to KIDSNET at 401-222-1442 or mail it to us at 3 Capitol Hill, Room 302, Providence, Rhode Island 02908.
Your responses will help us to provide the most useful information in future editions. Thank you!

1. What information did you find the most useful and why?

2. What information did you find the least useful?

3. Was the information presented in a clear and understandable fashion?

4. What additional information would be useful to include in future editions?

5. Are you in a health care provider office or agency that has access to KIDSNET?

☐ Yes ☐ No

If no, are you:

☐ A health care provider
☐ A school nurse teacher
☐ A social service provider
☐ A state agency representative
☐ A policy maker
☐ A legislator
☐ Other

6. Use this space for any additional comments about this publication.

Thank you for your feedback!

For more information, contact

KIDSNET

Rhode Island Department of Health

3 Capitol Hill, Room 302

Providence, RI 02908

401-222-4220

Kidsnet@doh.state.ri.us

www.health.ri.gov/family/kidsnet

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